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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/035,315	01/04/2002	Wei Kuang Teng	BHT-3092-258	1997

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EXAMINER

SHIFERAW, ELENI A

ART UNIT	PAPER NUMBER
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2136

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	01/31/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary	Application No. 10/035,315	Applicant(s) TENG, WEI KUANG	
	Examiner Eleni A. Shiferaw	Art Unit 2136	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 09 November 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,2 and 4-6 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,2 and 4-6 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. Claims 1-2 and 4-6 are pending.

Response to Amendment/argument

2. Applicant's amendments and arguments filed 11/09/2006 have been fully considered and argument is moot in view of new grounds of rejection.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

4. Claims 1-2 and 4-6 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. Although "partitioning a disk drive..." and "partitioning a disk drive **platter**..." seems to have the same meaning, they are two different things (see, USPN 6,931,503 B1 fig. 1 and col. 7 lines 17-55 and col. 2 lines 51-55 for a hard disk drive partitioning, and see USPN 6,691,213 B1 for hard disk platter partitioning). Applicant previously claims "partitioning a disk drive..." with an original disclosure of "partitioning a disk drive" (see applicant's disclosure page 2 lines 10, page 3 lines 14-19, and page 4 lines 10-17). Applicant amends the specification on 11/09/2006, to modify "partitioning a disk drive **platter**". The newly added specification is a

new matter since "partitioning a disk drive" and "partitioning a disk drive platter" have two different meaning.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 1-2 and 4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Luu et al. USPN 6,691,213 B1 in view of Bensimon et al. USPN 5,533,125.

Regarding claim 1, Luu et al. teaches a method for data security with lock in a hard disk and a solid state disk, comprising following steps:

partitioning a platter of a disk drive into a plurality of disk zones including a user zone and at least one zone selected from a group consisting of a ROM zone, and a protect zone (fig. 2 elements 18 and 22, and fig. 3);

providing a plurality of registers for indicating a record of a size of each of the plurality of disk zones (col. 3 lines 30-67; *protected area 22 LPB = MAX, user area 18 LBA is 0-MAX, management area 54 LBA = -ve*); and

utilizing a mathematical operation for treating a user input data and a register data (col. 5 lines 4-67; *LBA size determined/compared*);

Luu et al. fails to disclose assigning one of two different passwords to each of the ROM zone and the protected zone utilizing a password operation mode utilizing the mathematical operation with the user input data and the register data, wherein the user zone is configured to allow a user to execute all ATA commands and the protect zone is configured to prevent a user from reading or writing.

However Bensimon et al. disclose assigning one of two different passwords to each of the ROM zone and the protected zone (col. 6 lines 13-23 and claim 1) utilizing a password operation mode utilizing the mathematical operation (col. 5 lines 63-col. 6 lines 12) with the user input data and the register data (col. 5 lines 33-50), wherein the user zone is configured to allow a user to execute all ATA commands (col. 5 lines 16-31) and the protect zone is configured to prevent a user from reading or writing (col. 6 lines 13-23 and claim 6).

Therefore it would have been obvious to one having ordinary skill in the art at the time of the invention was made to employ the teachings of Bensimon et al. with in the system of Luu et al. because they are analogous in storage protection. One would have been motivated to incorporate the teachings of Bensimon et al. because it would protect the data stored in different sectors of the disc platter using different password for different access (read or read/write).

Regarding claim 2, Luu et al. discloses the method for data security with lock in a hard disk and a solid state disk, wherein the registers are a R_index register, a P-index register and LBA_max register for indicating records of three zone size (see fig. 3 and col. 3 lines 30-67 *for different size of registers indexed*).

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Regarding claim 4, Luu et al. discloses the method for data security with lock in a hard disk and a solid state disk, wherein when the register R_index.gtoreq.1 and the register LBA_max>the register P_index>the register R_index, the disk drive 1 is divided into three zones, the disk drive is divided into the user zone, the ROM zone and the protect zone (see fig. 3 and col. 3 lines 30-67).

7. Claims 5-6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Luu et al. USPN 6,691,213 B1 in view of Bensimon et al. USPN 5,533,125, and further in view of Yamamoto et al. (Yamamoto, US 6,532,513 B1).

Regarding claim 5, Luu et al. and Bensimon et al. teach all the subject matter as described above and the method for data security with lock in a hard disk and a solid state disk (see Luu et al. fig. 3 and Bensimon et al. abstract). Luu et al. and Bensimon et al. fail to explicitly disclose wherein wherein when the register R_index.gtoreq.1 and the register LBA_max=the register P_index>the register R_index, the disk drive is divided into two zones, the user zone and the ROM zone.

However Yamamoto discloses the method for data security with lock in a hard disk and a solid state disk, wherein when the register R_index.gtoreq.1 and the register LBA_max=the register P_index>the register R_index, the disk drive is divided into two zones, the user zone and the ROM zone (col. 12 lines 54-col. 12 lines 15; *LBA_max and register indexes are compared and disk storage is partitioned into different zone sizes*).

Therefore it would have been obvious to one having ordinary skill in the art at the time of the invention was made to employ the teachings of Yamamoto within the combination system of

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Luu et al. and Bensimon et al. because they are analogous in magnetic information/data storage memory (see, Yamamoto fig. 1 element 107 and claim 1). One would have been motivated to do so because it would have different sizes of register indexes (col. 12 lines 54-col. 12 lines 15).

Regarding claim 6, Yamamoto further discloses the method for data security with lock in a hard disk and a solid state disk, wherein when the register $R_index.gtoreq.1$ and the register $LBA_max>$ the register $P_index=$ the register R_index , the disk drive 1 is divided into two zones, the user zone and the protect zone (col. 12 lines 54-col. 12 lines 15; *LBA_max and register indexes are compared and disk storage is partitioned into different zone sizes*). The rationale for combining are the same as claim 5 above.

Conclusion

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

- a. Parzych et al. US 5,375,243; *using password to unlock a hard drive for protected data/program is very well known in 1991...1994.*
- b. Gardner Pub. No.: US 2003/0101322 A1: *partitioning a memory to store secure data/program...*

For more prior arts see Form 892 attached.

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9. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a).

Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Eleni A. Shiferaw whose telephone number is 571-272-3867. The examiner can normally be reached on Mon-Fri 8:00am-5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nasser R. Moazzami can be reached on (571) 272-4195. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

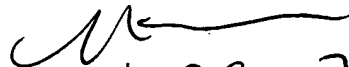
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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



January 26, 2007

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